

What is claimed is:

1. Data access apparatus comprising:

an external memory unit for storing data, wherein the external memory unit has a second time cycles for performing a task; and

a control unit couples with the external memory unit via a memory bus, comprising:

a microprocessor unit, having a first time cycles to perform a microprocessor operating;

and

a memory interface control unit for directing accessing data toward to a data address of the external memory unit, wherein the microprocessor unit could access data from the external memory via the memory interface control unit;

wherein the external memory unit has a data segment storing a flow control parameters and numerical arithmetic of the microprocessor operating.

2. The data access apparatus according to claim 1, wherein the first time cycles is much longer than the second time cycles.

3. The data access apparatus according to claim 1, wherein when the microprocessor is going to access data from the data segment of the external memory unit, sending a access request signal and suspending the first time cycles until receiving an acknowledge signal, then reviving the first time cycles immediately.

4. The data access apparatus according to claim 3, wherein duration between suspending and reviving the first time cycles is substantial a time when the second time cycles is finished, that is to say when the external memory unit finishes a current task.

5. The data access apparatus according to claim 1, wherein the external memory unit is a dynamic random access memory (DRAM).

6. The data access apparatus according to claim 1, wherein a capacity of the data segment of the external memory unit is smaller than a capacity of the external memory unit.
7. The data access apparatus according to claim 1, wherein the data access apparatus could be applied to an optical-electronic system and which is selected from: a CD-ROM, CD-RW, DVD+/-ROM, DVD+/-RW.
8. A control unit of data access with couples to an external memory unit, having a second time cycles for performing a task, via a memory bus for an optical-electronic system, the control unit of data access comprising:
  - a memory interface control unit for directing accessing data toward to a data address of the external memory unit; and
  - a microprocessor having a first time cycles to perform a microprocessor operation, wherein when the microprocessor is going to access data from the external memory unit via the memory interface, the control unit would send an access request signal to the external memory unitwherein data of flow control parameters and numerical arithmetic of the microprocessor operating which used to be stored in an internal memory unit of the control unit is replaced by a data segment within the external memory unit.
9. The control unit of data access according to claim 8, wherein the first time cycles is much longer than the second time cycles.
10. The control unit of data access according to claim 8, wherein when sending the access request signal, the first time cycles is suspended in the meantime until receiving a acknowledge signal, then the first time cycles is revived immediately.

11. The control unit of data access according to claim 10, wherein duration between the first time cycles suspended and revived is substantial a time when the second time cycles is finished, that is to say when the external memory unit finishes a current task.
12. The control unit of data access according to claim 8, wherein the external memory unit is a DRAM.
13. The control unit of data access according to claim 8, wherein a capacity of the data segment of the external memory unit is smaller than a capacity of the external memory unit.
14. The control unit of data access according to claim 8, wherein the optical-electronic is selected from: a CD-ROM, a CD-RW, a DVD+/-ROM, and DVD+/-RW.
15. A data access method comprising:  
suspending a first time clock when sending an access request signal; and  
reviving the first time clock when receiving an acknowledgement signal;  
wherein data selected from: flow control parameters and numerical arithmetic is stored in a data segment of an external memory unit, and the first time cycles is a time for access data stored in the data segment.
16. The data access method according to claim 15, wherein the external memory unit has a second time cycles which is substantial a time for access data stored in the external memory unit.
17. The data access method according to claim 16, wherein cycles of the first time cycles is much longer than cycles of the second time cycles.

18. The data access method according to claim 16, wherein duration of the first time cycles between being suspended and being revived is substantial a time of the second time clock being finished.
19. The data access method according to claim 15, further comprising the external memory unit performs a current task when suspending the first time cycles, and after finishing the current task, reviving the first time cycles immediately.
20. The data access method according to claim 15, wherein the method could be applied to an optical-electronic system which is selected from: a CD-ROM, a CD-RW, a DVD+/-ROM, and a DVD+/-RW.